AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-36 (Canceled).

37. (previously presented)   A moving picture reproducing apparatus comprising:

a decoder for receiving a bitstream, obtained on compressing/encoding a moving picture, and for restoring a picture image from said bitstream;

a characteristic parameter extraction unit for extracting a characteristic parameter from the picture image restored; and

a picture reconstruction unit for carrying out preset processing, using a temporally past characteristic parameter and/or a temporally future characteristic parameter, for restoring a picture image which has not been received.

38. (previously presented)   A moving picture reproducing apparatus comprising:

a decoder for receiving a bitstream, obtained on compressing/encoding a moving picture, decoding at least one characteristic parameter from said bitstream, outputting the characteristic parameter decoded, and for restoring a picture image, using the characteristic parameter decoded; and

a picture reconstruction unit for carrying out preset processing, using a temporally past characteristic parameter and/or a temporally future characteristic parameter, for restoring a picture image which has not been received.

39. (previously presented)   The moving picture reproducing apparatus according to claim 37, wherein said characteristic parameter extraction unit is provided in said picture reconstruction unit, said picture reconstruction unit dividing the picture image into a plurality of blocks, each being of a preset small size, extracting a characteristic parameter from the picture image restored, in at least one of said blocks, deciding on whether or not preset processing is to be carried out, with the use of a temporally past characteristic parameter and/or a temporally future characteristic parameter, and subsequently restoring a picture image which has not been received.

40. (previously presented)   The moving picture reproducing apparatus according to claim 38, wherein said picture reconstruction unit divides the picture image into a plurality of blocks, each being of a preset small size, decides on whether or not preset processing is to be carried out, in at least one small-sized block, with the use of a temporally past characteristic parameter and/or a temporally future characteristic parameter, and subsequently restores a picture image which has not been received.

41. (Previously presented)   The moving picture reproducing apparatus according to claim 37, wherein said picture reconstruction unit carries out interpolation, using at least one of a

temporally past characteristic parameter and a temporally future characteristic parameter, along

the time axis, to subsequently restore a picture image which has not been received.

42. (Previously presented) The moving picture reproducing apparatus according to claim

38, wherein said picture reconstruction unit carries out interpolation, using at least one of a

temporally past characteristic parameter and a temporally future characteristic parameter, along

the time axis, to subsequently restore a picture image which has not been received.

43. (Previously presented)   The moving picture reproducing apparatus according to

claim 37, wherein said picture reconstruction unit includes said characteristic parameter

extraction unit, said picture reconstruction unit dividing the picture image into a plurality of

blocks, each being of a preset small size, extracting a characteristic parameter from the picture

image restored, in at least one of said blocks, deciding on whether or not interpolation along the

time axis is to be carried out, with the use of at least one of a temporally past characteristic

parameter and a temporally future characteristic parameter, and subsequently restoring a picture

image which has not been received.

44. (Previously presented)   The moving picture reproducing apparatus according to

claim 38, wherein said picture reconstruction unit divides the picture image into a plurality of

blocks, each being of a preset small size, decides, in at least one of said small-sized blocks, on

whether or not interpolation is to be carried out, with the use of at least one of a temporally past

characteristic parameter and a temporally future characteristic parameter, and subsequently

restores a picture image which has not been received.

45. (previously presented)   A moving picture reproducing apparatus comprising:

a decoder, said decoder including:

a decoding unit for receiving a bitstream, obtained on compressing/encoding a moving picture, decoding the bitstream received, and for outputting quantized transform coefficients;

a inverse quantizer for carrying out calculations for inverse quantization on the quantized transform coefficients output from said decoding unit;

an inverse transformer for carrying out inverse transform, which is inverse to the transform carried out on an encoder side, on transform coefficients obtained on inverse quantization by said inverse quantizer;

an adder receiving said moving picture signal, obtained on inverse transform by said inverse transformer, at an input end thereof; and

a motion compensation predictor for carrying out motion compensation/prediction on the moving picture signal, output from said adder, with the use of a characteristic parameter, output from said decoding unit, and for supplying the resulting moving picture signal to another input end of said adder;

said decoder outputting, as a decoder output signal, a moving picture signal obtained on summing, by said adder, a moving picture signal output from said inverse transformer, and a moving picture signal output from said motion compensation predictor;

a frame memory for storing a moving picture signal output from said decoder;

a characteristic parameter extraction unit for extracting a characteristic parameter from the moving picture signal output from said decoder; and

a moving picture reconstruction unit for receiving said characteristic parameter, receiving a temporally past picture and/or a temporally future picture from said frame memory, and for reproducing a moving picture frame, with the use of said characteristic parameter to output the moving picture frame reproduced.

46. (previously presented)   A moving picture reproducing apparatus comprising:

a decoder, said decoder including:

a decoding unit for receiving a bitstream, obtained on compressing/encoding a moving picture, decoding the bitstream received, and for outputting quantized transform coefficients;

a inverse quantizer for carrying out calculations for inverse quantization on the quantized transform coefficients output from said decoding unit;

an inverse transformer for carrying out inverse transform, which is inverse to the transform carried out on an encoder side, on transform coefficients obtained on inverse quantization by said inverse quantizer;

an adder receiving said moving picture signal, obtained on inverse transform by said inverse transformer, at an input end thereof; and

a motion compensation predictor for carrying out motion compensation/prediction on the moving picture signal, output from said adder, using a characteristic parameter output from said decoding unit, and for supplying the resulting moving picture signal to another input end of said adder;

said decoder outputting, as a decoder output signal, a moving picture signal, obtained on summing, by said adder, a moving picture signal output from said inverse transformer and a moving picture signal output from said motion compensation predictor;

a frame memory for storing a moving picture signal output from said decoder; and

a moving picture reconstruction unit for receiving said characteristic parameter, receiving

a temporally past picture and/or a temporally future picture from said frame memory, and for

reproducing a moving picture frame using said characteristic parameter to output the moving

picture frame reproduced.

47. (previously presented) The moving picture reproducing apparatus according to claim

45, further comprising

a division-into-small-size block unit for receiving an output from said decoder, dividing a

picture image restored into preset small-sized blocks, and for outputting demarcations of said

small-sized blocks; wherein

said characteristic parameter extraction unit extracts a characteristic parameter in at least

one of said small-sized blocks, outputs the characteristic parameter extracted, decides, in at least

one of said small-sized blocks, on whether or not the processing for restoring a moving picture is

to be carried out with use of said characteristic parameter, and outputs a decision signal; and

wherein

said moving picture reconstruction unit receives the characteristic parameter, results of

decision and the information on the small-sized blocks, from said characteristic parameter

extraction unit, receives a temporally past picture and/or a temporally future picture, from said

frame memory, reproduces a moving picture frame, with the use of said characteristic parameter,

and outputs the reproduced moving picture frame.

48. (previously presented)   The moving picture reproducing apparatus according to

claim 46, further comprising

a division-into-small-size section/decision unit for receiving an output from said decoder,

dividing a picture image restored into a plurality of preset small-sized blocks, outputting

demarcations of said small-sized blocks, extracting a characteristic parameter in at least one of

said small-sized blocks, outputting the characteristic parameter extracted, deciding, in at least

one of said small-sized blocks, on whether or not processing for restoring a moving picture is to

be carried out, with the use of said characteristic parameter, and for outputting a decision signal;

wherein

said moving picture reconstruction unit receives the characteristic parameter, results of

decision from said division-into-small-size section/decision unit and the information on the

small-sized block, from said decoding unit, receives a temporally past picture and/or a

temporally future picture, from said frame memory, reproduces a moving picture frame, with the

use of said characteristic parameter, and outputs the reproduced moving picture frame.

49. (previously presented)   The moving picture reproducing apparatus according to

claim 45, further comprising

an interpolator for receiving an output of said characteristic parameter extracting unit for

carrying out interpolation along the time axis using at least one of a temporally past

characteristic parameter and a temporally future characteristic parameter; wherein

said moving picture reconstruction unit receives a characteristic parameter from said

interpolator, receives a temporally past picture and/or a temporally future picture from said frame

memory, reproduces a moving picture frame, with the use of said interpolated characteristic

parameter, and outputs a reproduced moving picture frame.

50. (previously presented)   The moving picture reproducing apparatus according to

claim 46, further comprising

an interpolator for receiving a characteristic parameter from the decoding unit of said

decoder for carrying out interpolation along the time axis using at least one of the temporally

past characteristic parameter and the temporally future characteristic parameter; wherein

said moving picture reconstruction unit receives a characteristic parameter from said

interpolator, receives a temporally past characteristic parameter and/or a temporally future

characteristic parameter from said frame memory, reproduces a moving picture frame, with the

use of said interpolated characteristic parameter, and outputs a reproduced moving picture frame.

51. (previously presented) The moving picture reproducing apparatus according to claim

45, further comprising

a division-into-small-size block unit for receiving an output of said decoder, dividing a

restored picture frame into a plurality of blocks, each being of preset small size, and for

outputting demarcations of the small-sized blocks;

said characteristic parameter extraction unit receiving the information on the division into

said small-sized blocks from said division-into-small-size block unit, extracting and outputting a

characteristic parameter in at least one of said small-sized blocks, deciding on whether or not the

processing for restoration of a moving picture is to be carried out, in at least one of said small-

sized blocks, with the use of said characteristic parameter, and outputting a decision signal; said

apparatus further comprising

an interpolator for receiving the characteristic parameter from said characteristic

parameter extraction/decision unit and for carrying out interpolation along the time axis, using at

least one of a temporally past characteristic parameter and a future characteristic parameter;

wherein

said moving picture reconstruction unit receives the characteristic parameter, obtained on

interpolation by said interpolator, result of said decision and the information on the small-sized

blocks, receives a temporally past picture and/or a temporally future picture from said frame

memory, reproduces a moving picture frame, with the use of said characteristic parameter and

outputs the moving picture frame reproduced.

52. (Previously presented) The moving picture reproducing apparatus according to claim

46, further comprising:

a division-into-small-size section/decision unit for receiving an output from said decoder,

dividing a restored picture image into a plurality of blocks, each being of a preset small size,

outputting demarcations of said small-sized blocks, extracting and outputting a characteristic

parameter in at least one of said small-sized blocks, and for deciding, in at least one of said

small-sized blocks, on whether or not the processing for restoring a moving picture is to be

carried out, using said characteristic parameter; and

an interpolator for receiving a characteristic parameter from said decoding unit, receiving

the result of decision in said division-into-small-size section/decision unit and the information on

the division into small-sized blocks, and carrying out interpolation along the time axis, using at

least one of the temporally past characteristic parameter and the temporally future characteristic

parameter;

said moving picture reconstruction unit receiving a characteristic parameter, obtained on

interpolation by said interpolator, receiving the results of decision and the information on

division into small-sized blocks, receiving a temporally past picture or a temporally future

picture from said frame memory, reproducing a moving picture frame, with the use of said

characteristic parameter, and outputting a reproduced moving picture frame.

53. (Previously presented)   The moving picture reproducing apparatus according to

claim 45, wherein said characteristic parameter is a motion vector; and wherein

said moving picture reconstruction unit performs, as inter-frame prediction, the motion

compensation/inter-frame prediction, employing the motion vector, for reproducing a moving

picture frame.

54. (previously presented)   A moving picture reproducing method comprising:

receiving a bitstream, obtained on compressing/encoding a moving picture, and decoding

said bitstream to restore a picture image from said bitstream;

extracting a characteristic parameter from the picture image restored; and

carrying out preset processing, with the use of a temporally past characteristic parameter

and/or a temporally future characteristic parameter, for restoring a picture image which has not

been received.

55. (previously presented)   A moving picture reproducing method comprising:

receiving a bitstream, obtained on compressing/encoding a moving picture, decoding at

least one characteristic parameter from said bitstream, outputting the characteristic parameter

decoded, and restoring a picture image using said characteristic parameter decoded; and

carrying out preset processing, using a temporally past characteristic parameter and/or a

temporally future characteristic parameter, for restoring a picture image which has not been

received.

56. (currently amended)   A computer-readable medium in which a program is

recorded for causing a computer, constituting to serve as an apparatus for receiving a bitstream,

obtained on compressing/encoding a moving picture, and for reproducing the moving picture, to

execute:

the processing of decoding restoring a picture image from said bit stream subjected to

compressing/encoding;

the processing of extracting a characteristic parameter from said compressed/encoded

bitstream; and

the processing of carrying out preset processing, using a temporally past characteristic

parameter and/or a temporally future characteristic parameter, for restoring a picture image

which has not been received.

57. (currently amended)   A computer-readable medium in which a program is

recorded for causing a computer, constituting an to serve as an apparatus for receiving a

bitstream, obtained on compressing/encoding a moving picture, and for reproducing the moving

picture, to execute:

~~the processing of~~ decoding at least one characteristic parameter from said

compressed/encoded bitstream, outputting the characteristic parameter decoded and restoring a

picture image using the characteristic parameter decoded; and

~~the processing of~~ carrying out preset processing, with the use of a temporally past

characteristic parameter and/or a temporally future characteristic parameter, for restoring a

picture image which has not been received.